

Fig.1

Separate Primary DNS and EDNS

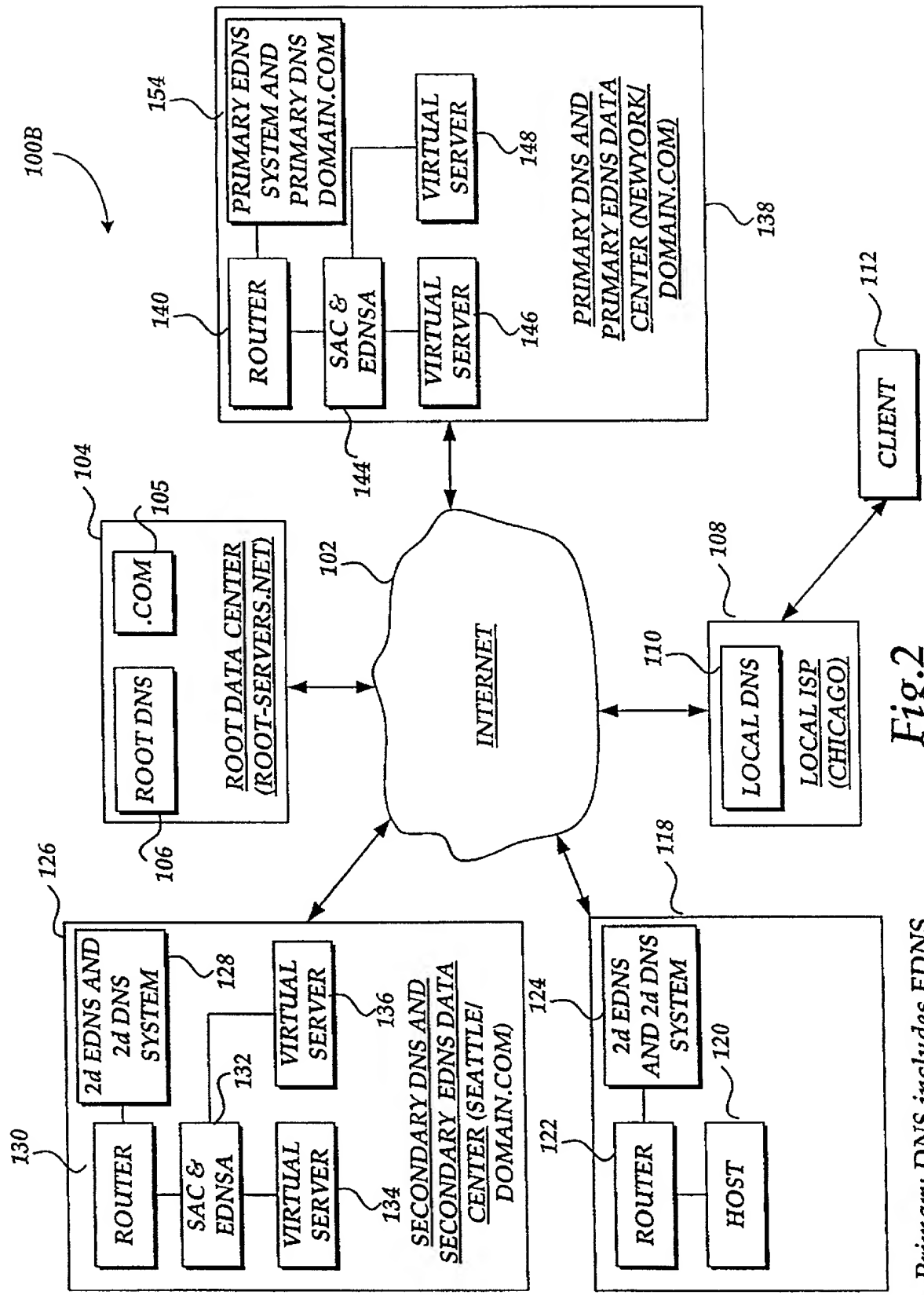


Fig.2

Primary DNS includes EDNS

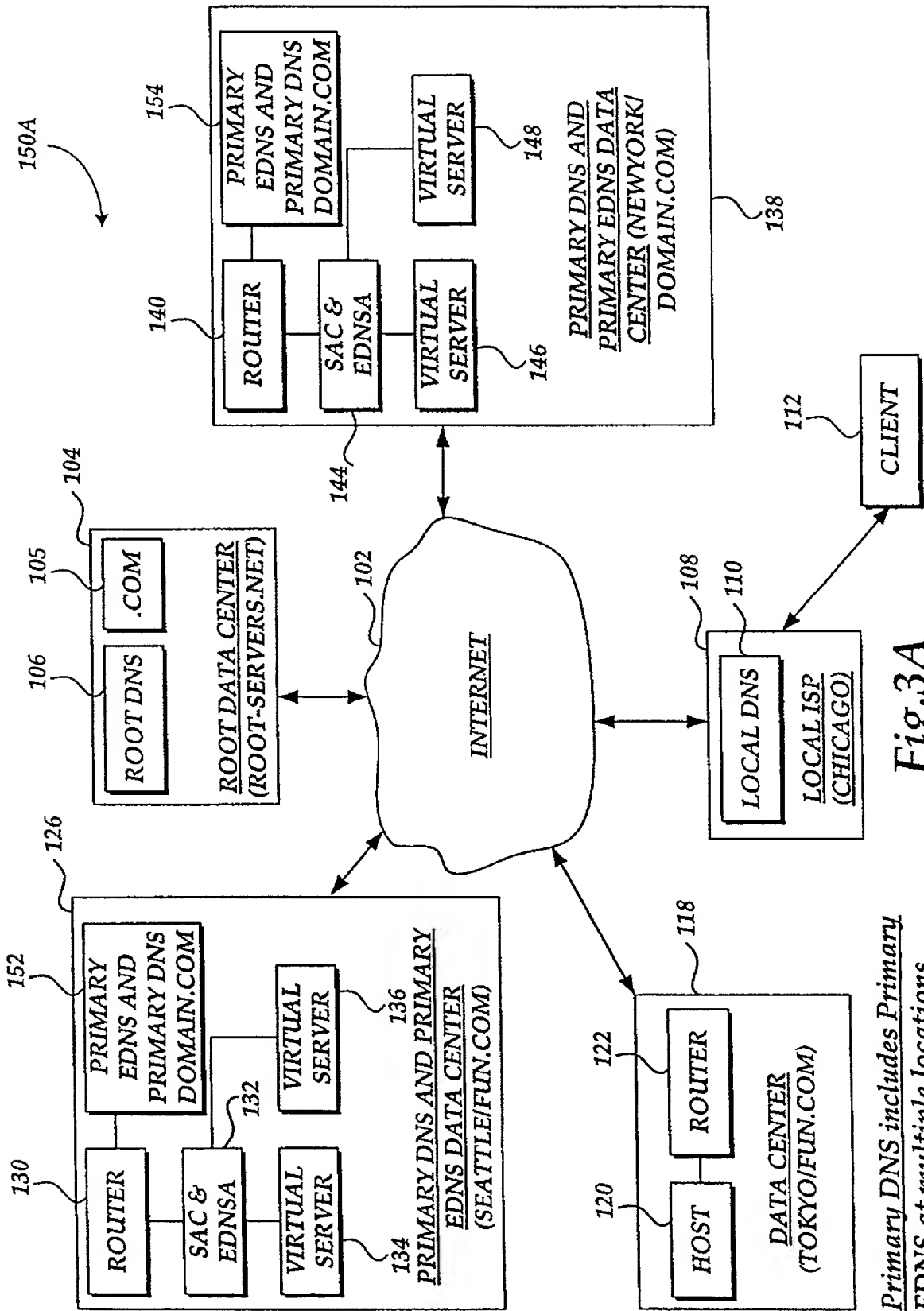


Fig.3A

Primary DNS includes Primary EDNS at multiple locations

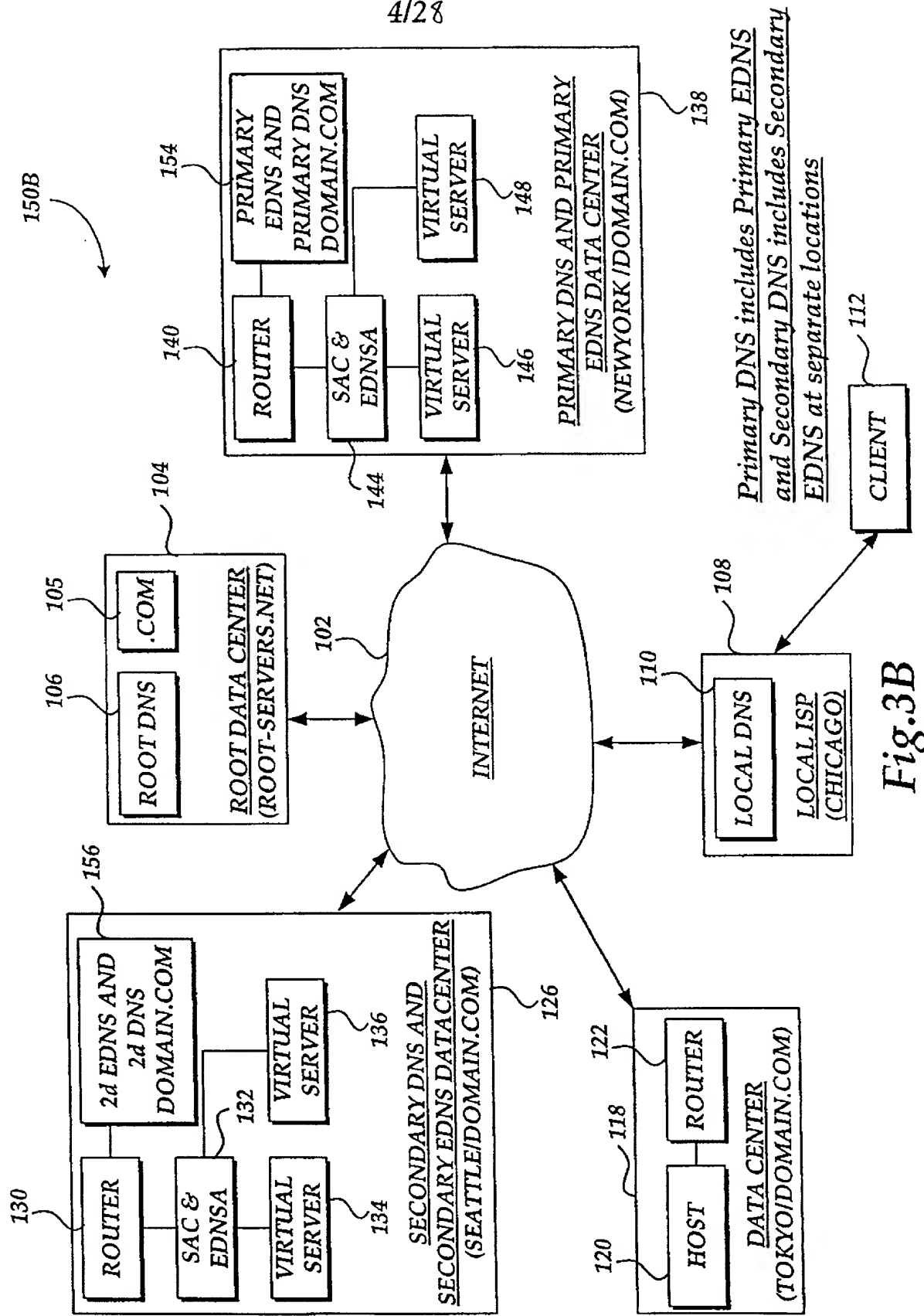
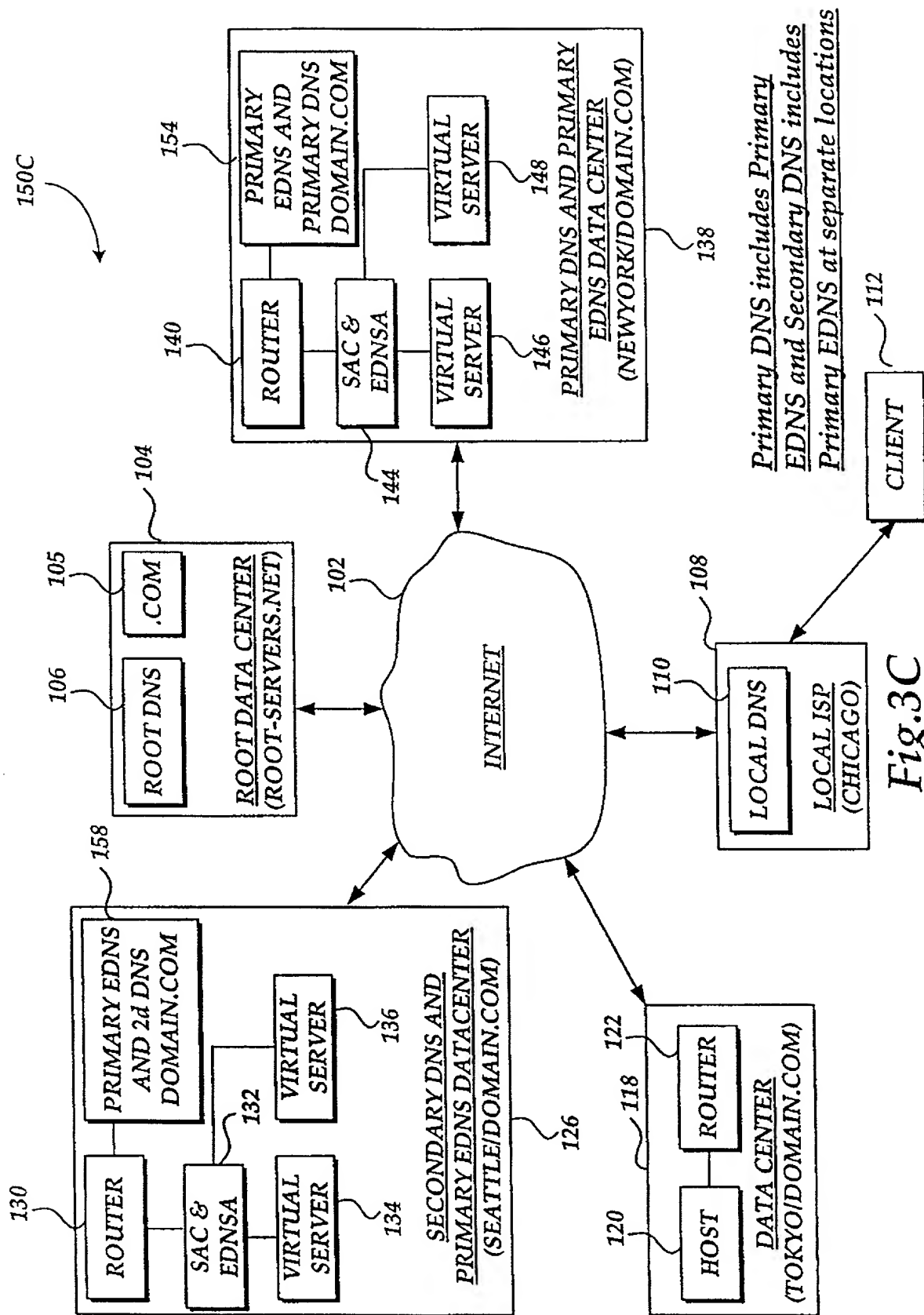


Fig.3B



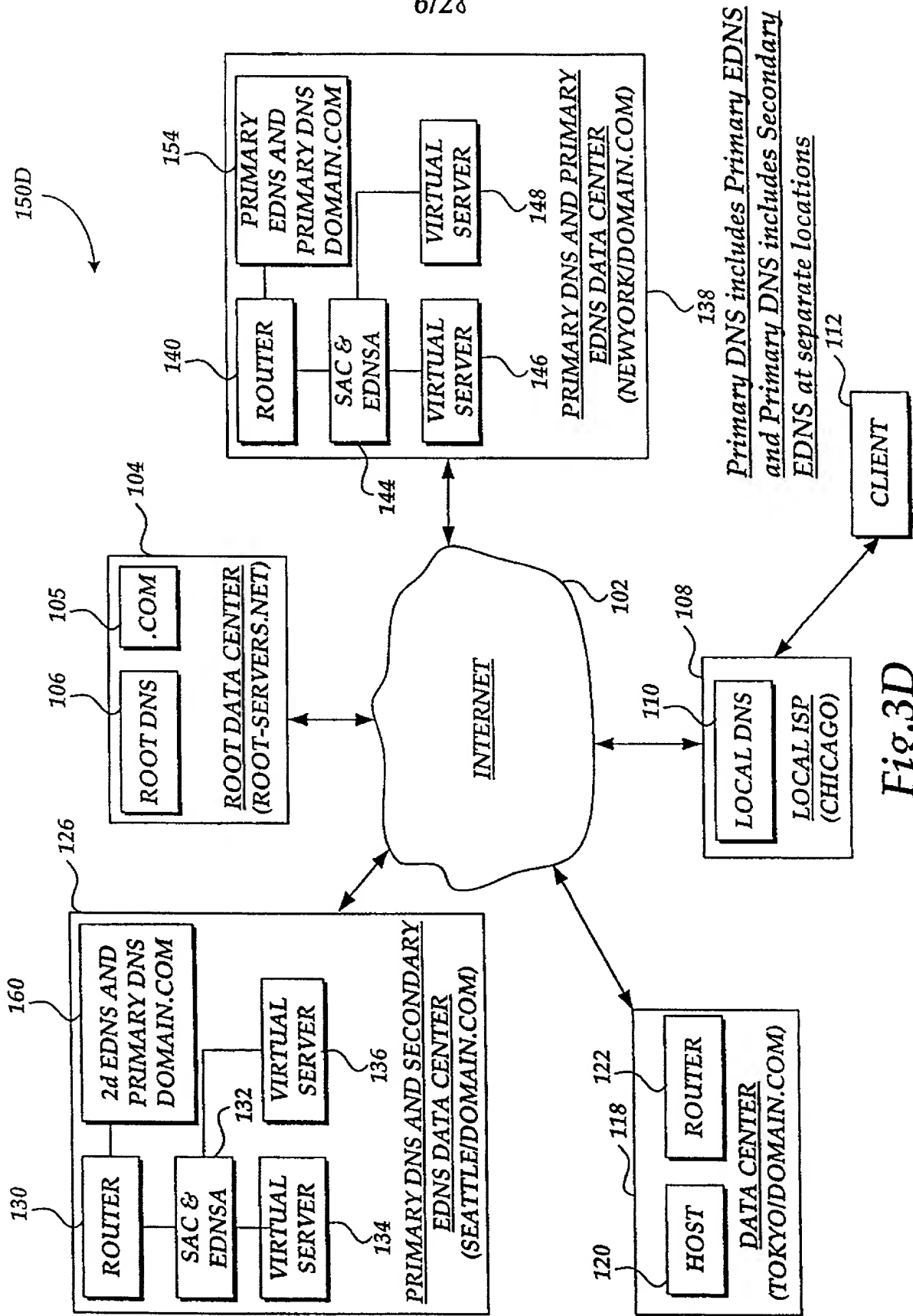


Fig.3D

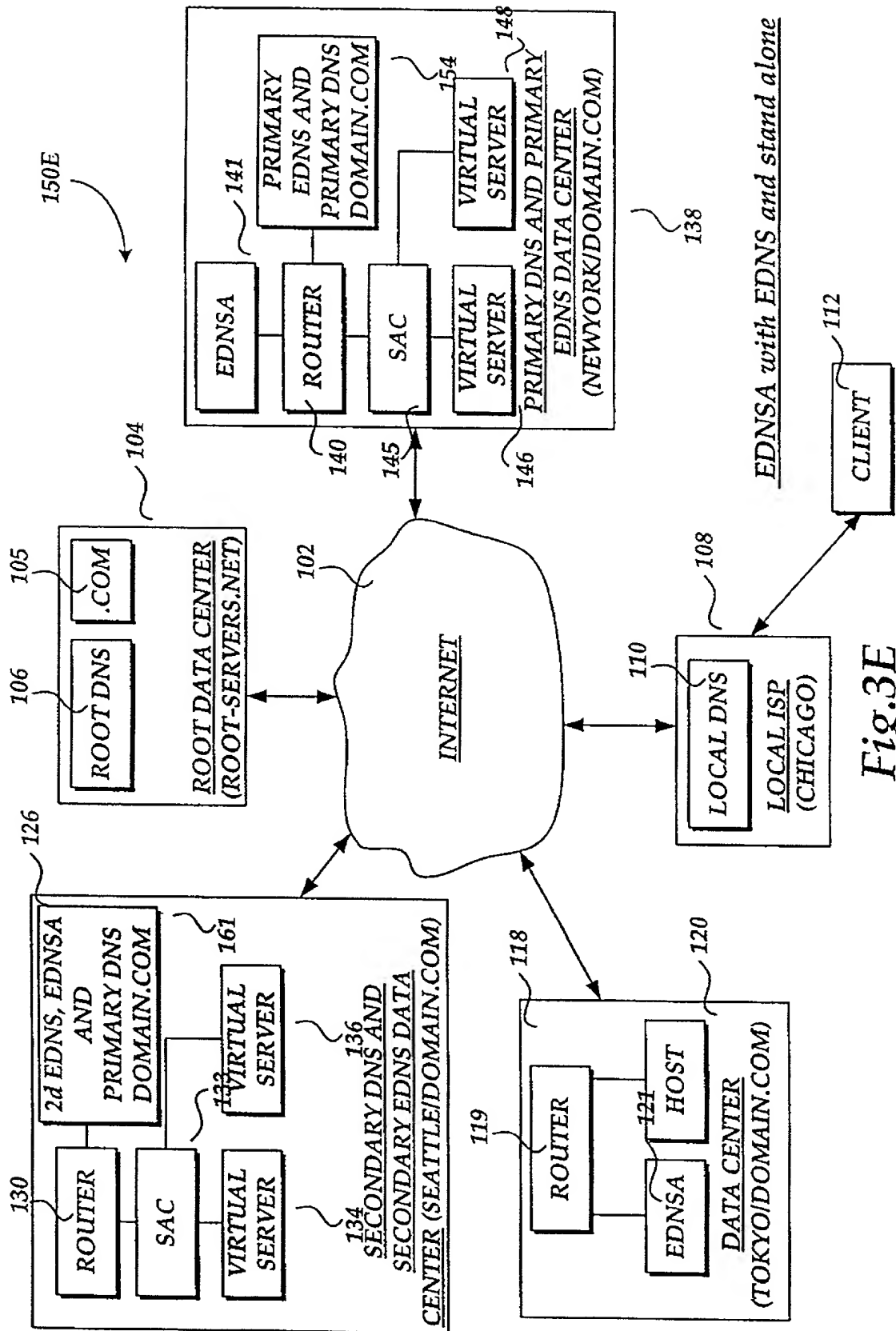


Fig.3E

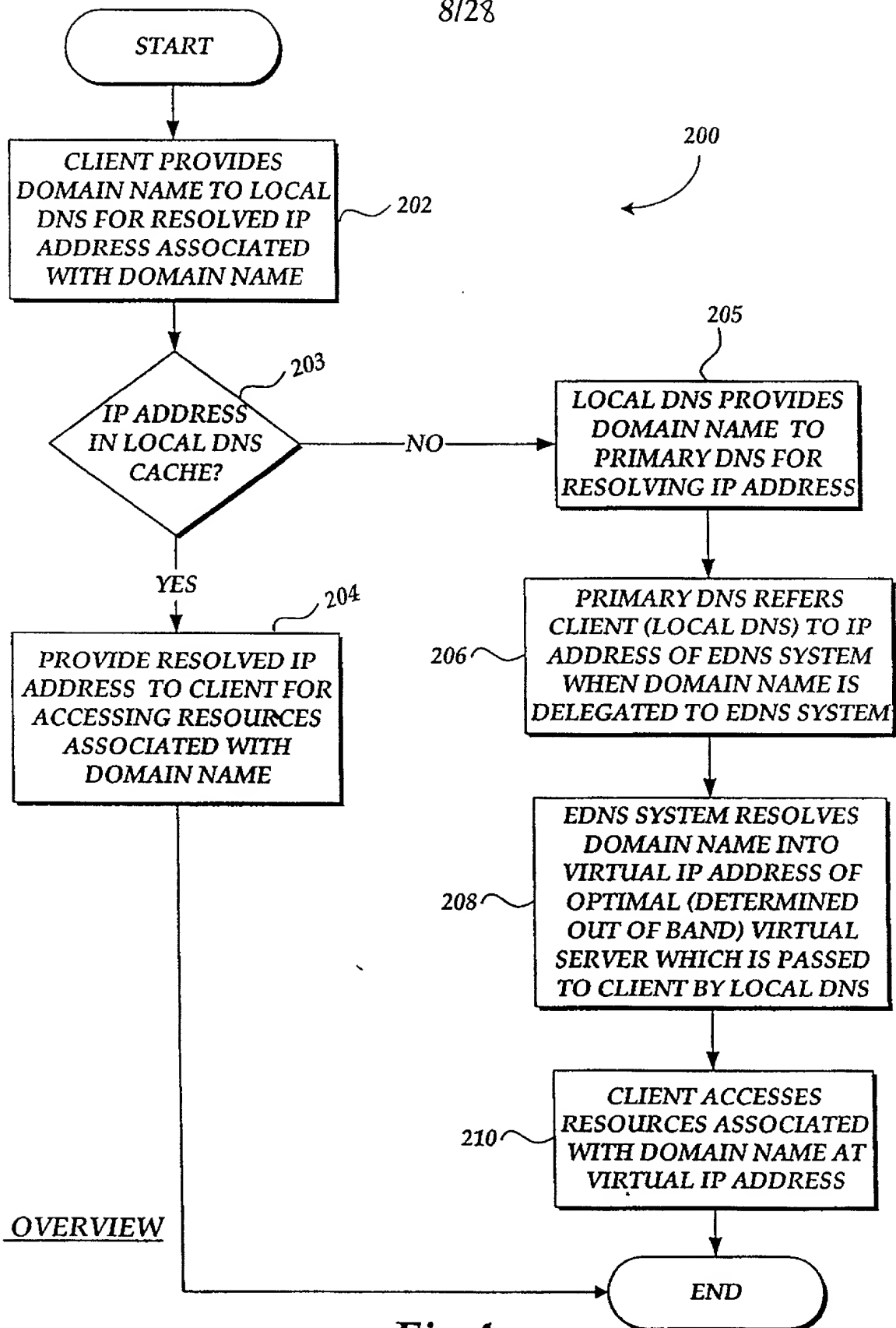
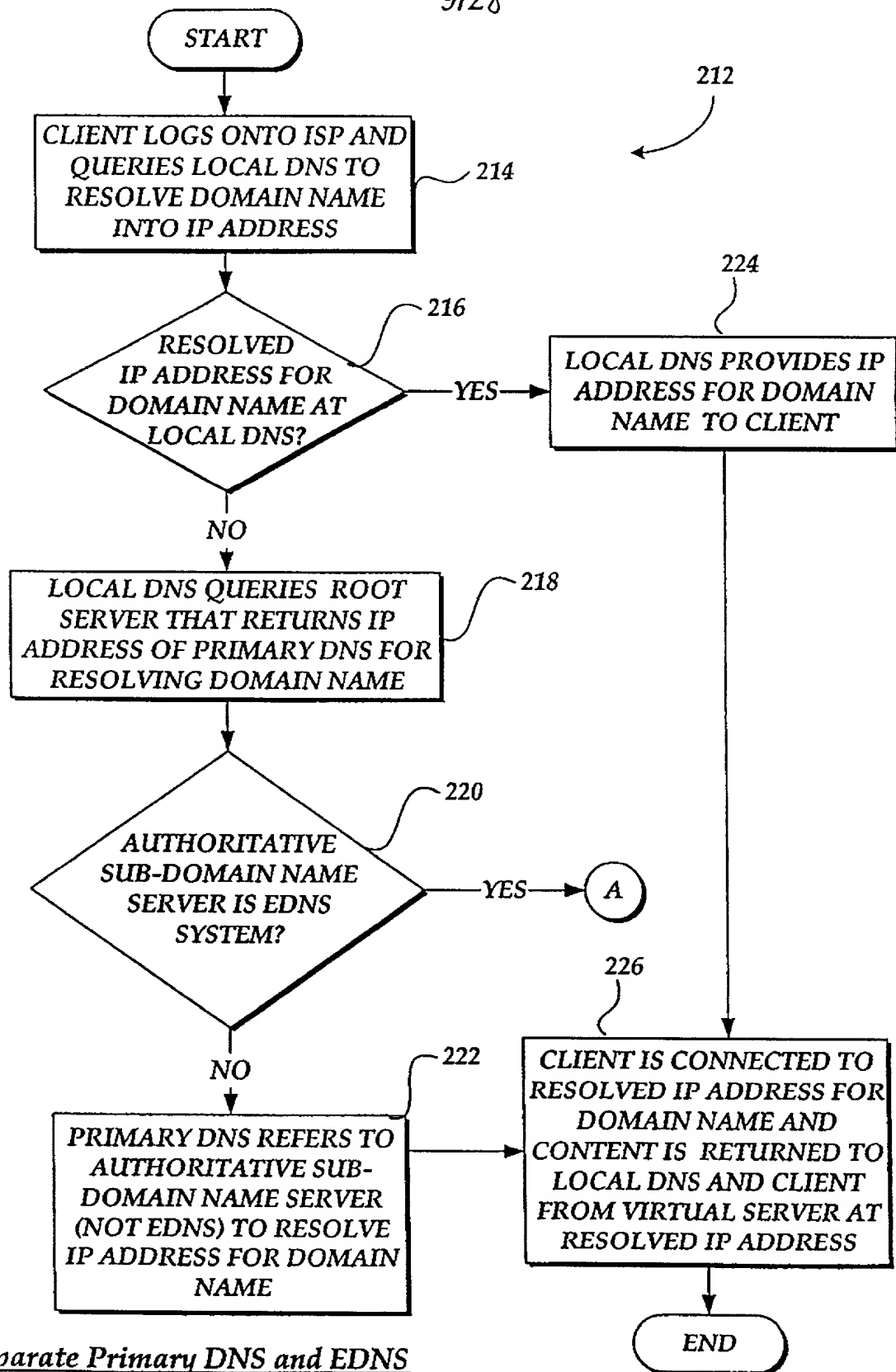


Fig.4

9/28

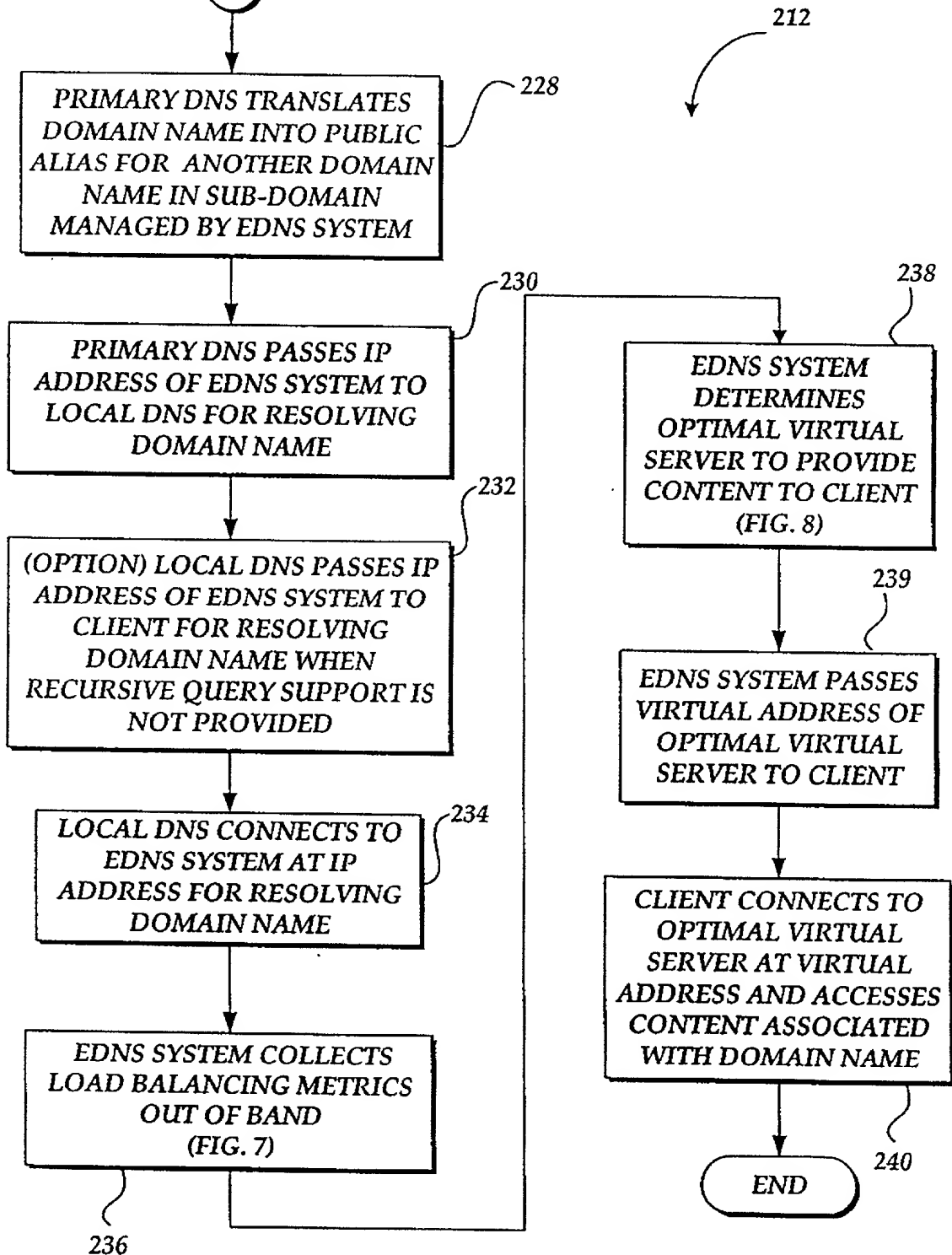


Separate Primary DNS and EDNS

Fig. 5A

A

10/28



Separate Primary DNS and EDNS

Fig. 5B

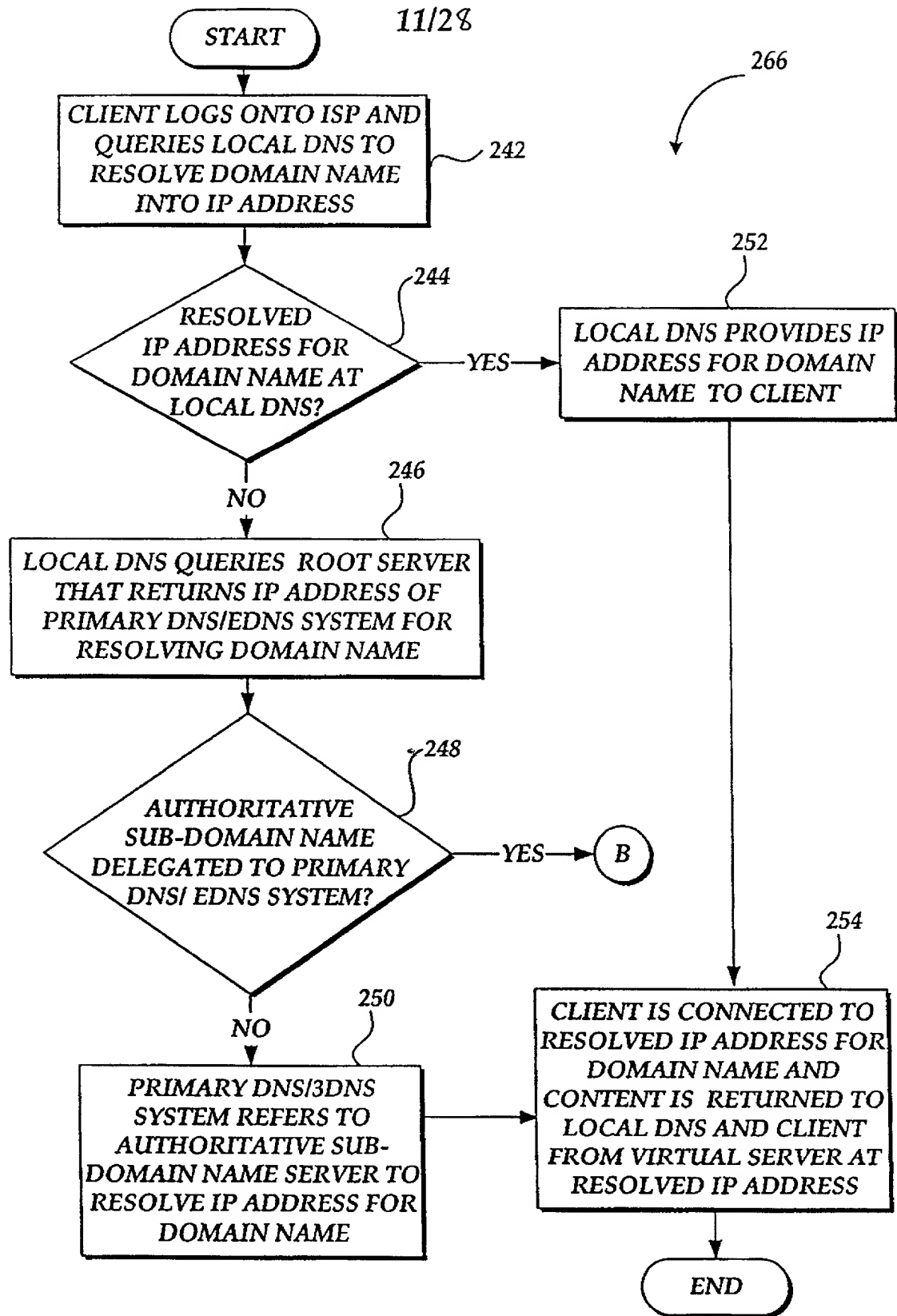


Fig.6A

Primary DNS includes 3DNS

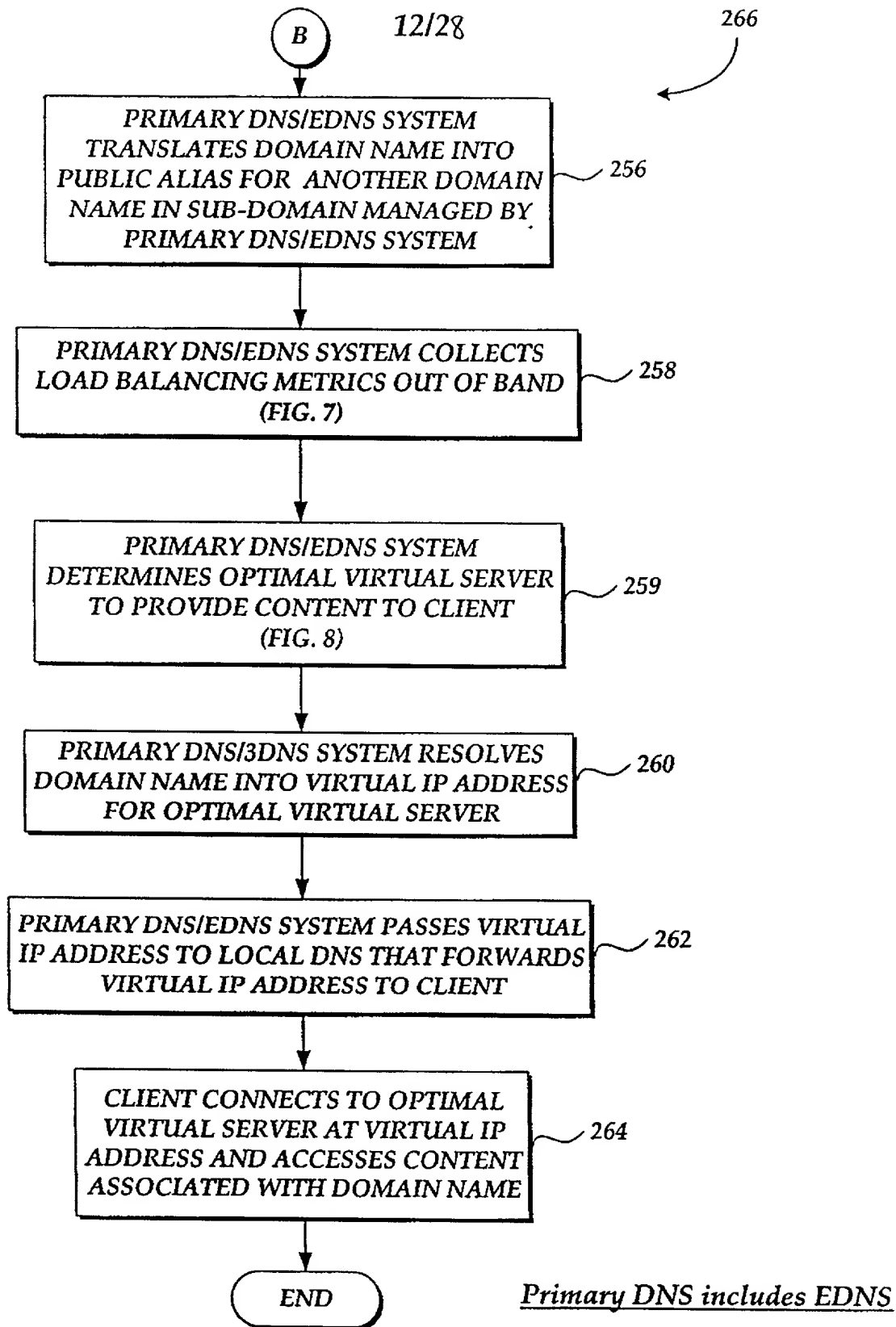


Fig. 6B

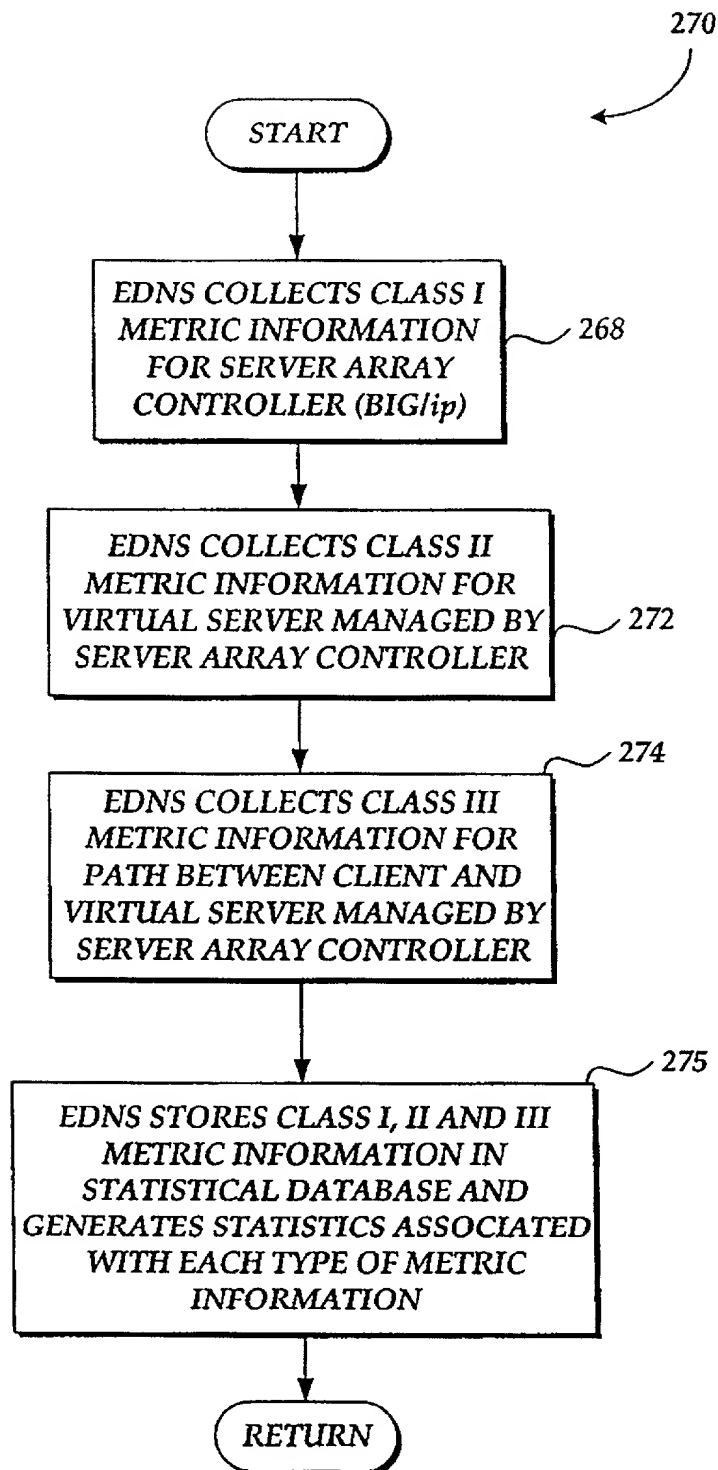


Fig. 7

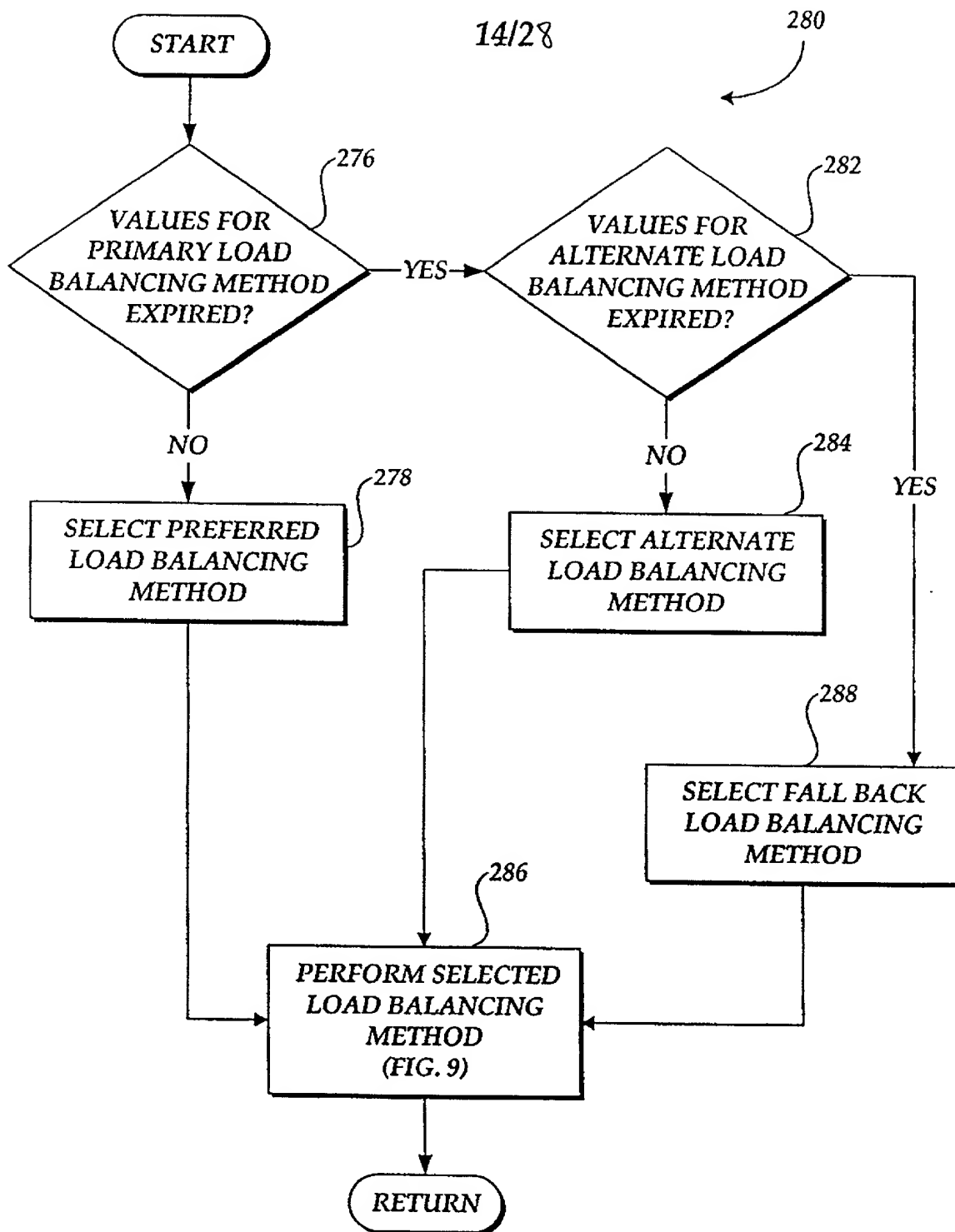
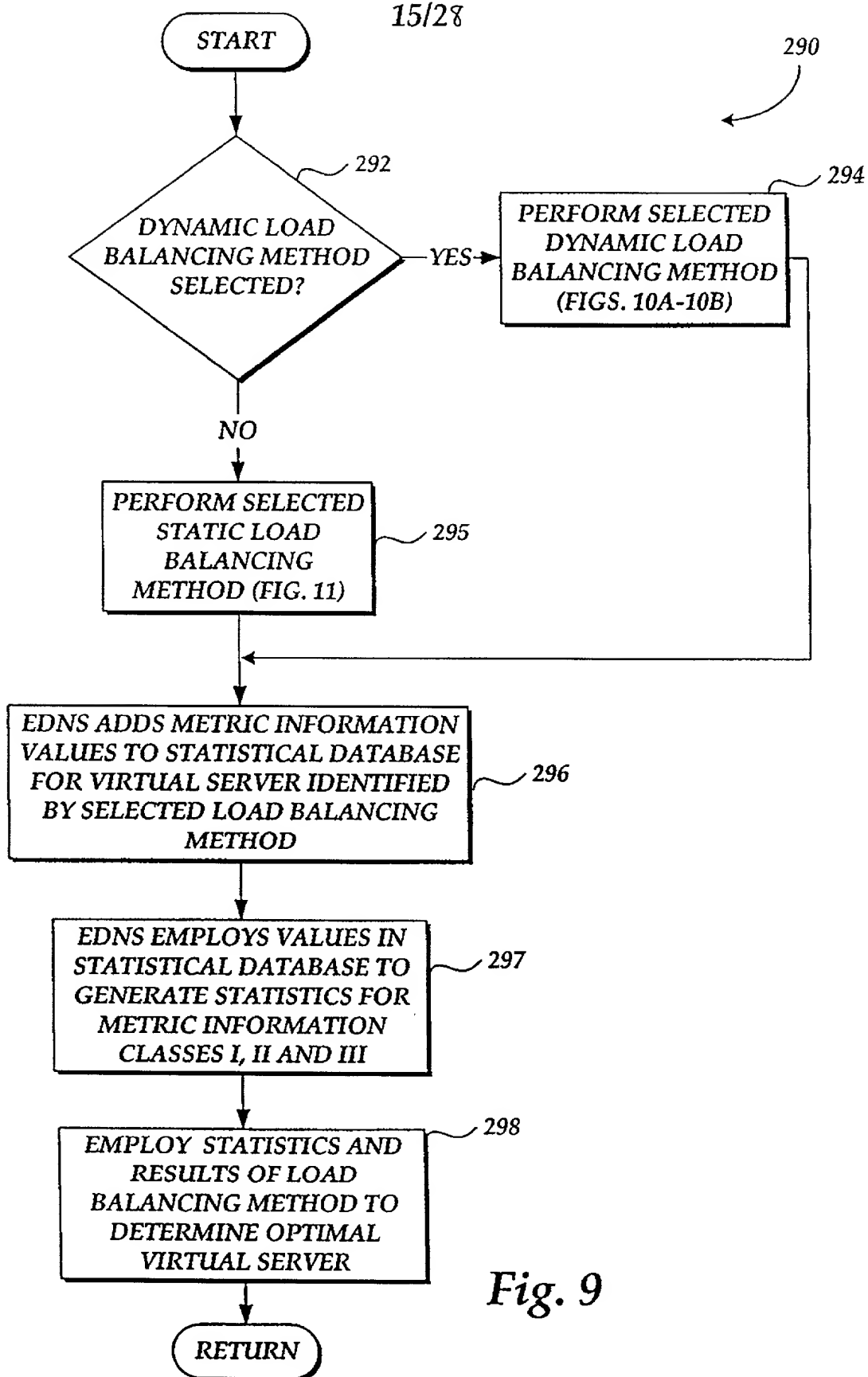


Fig. 8

*Fig. 9*

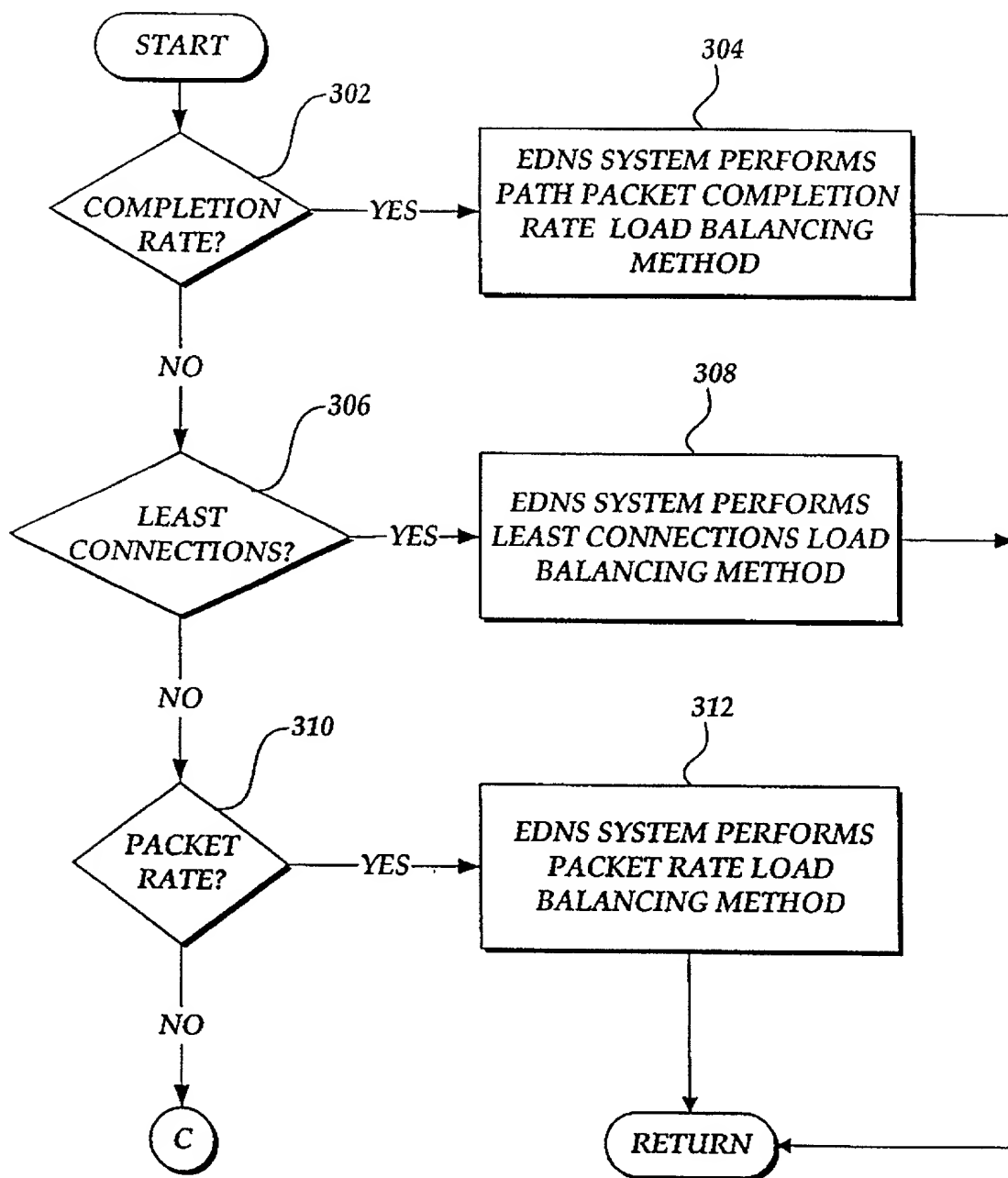


Fig. 10A

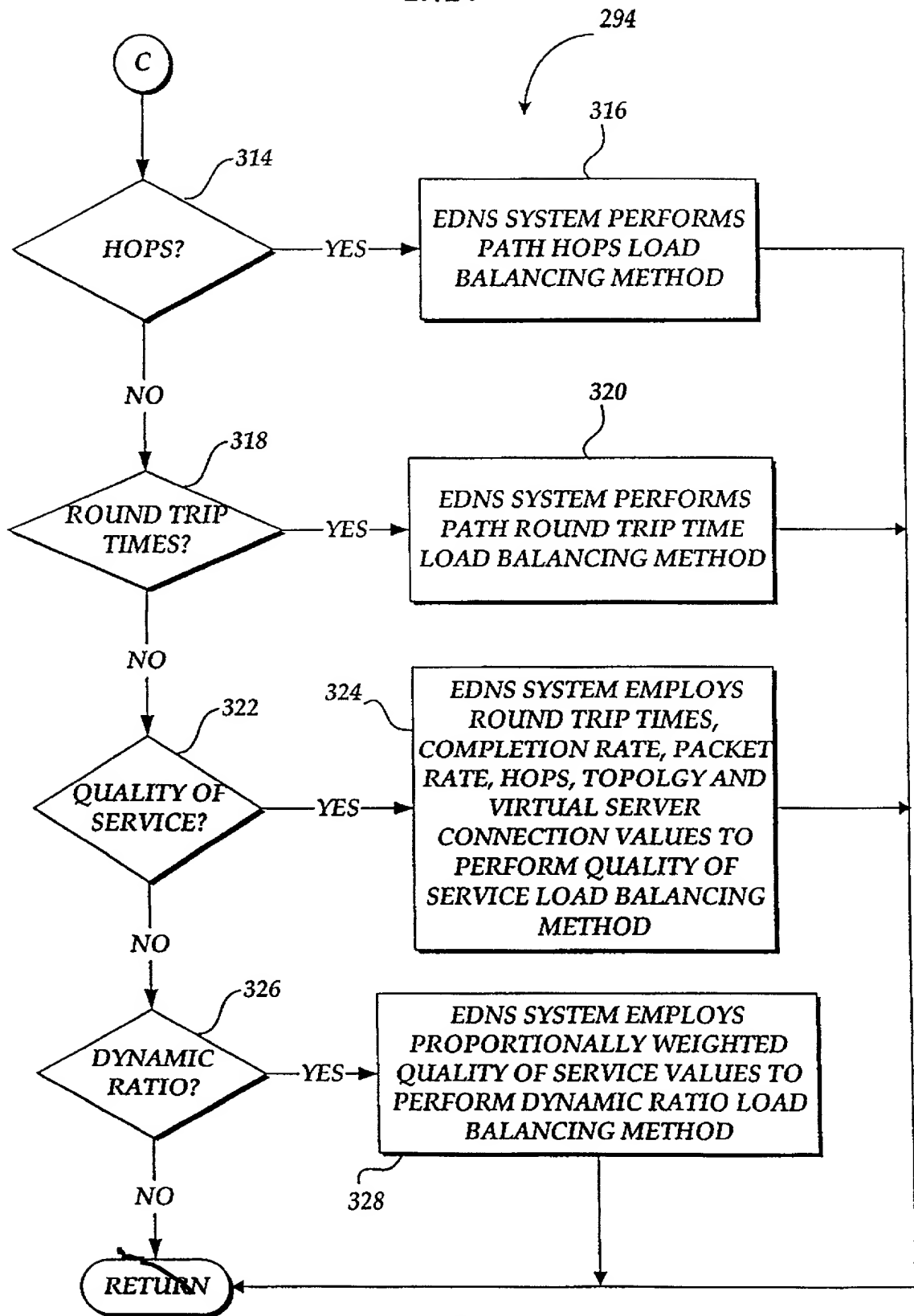


Fig. 10B

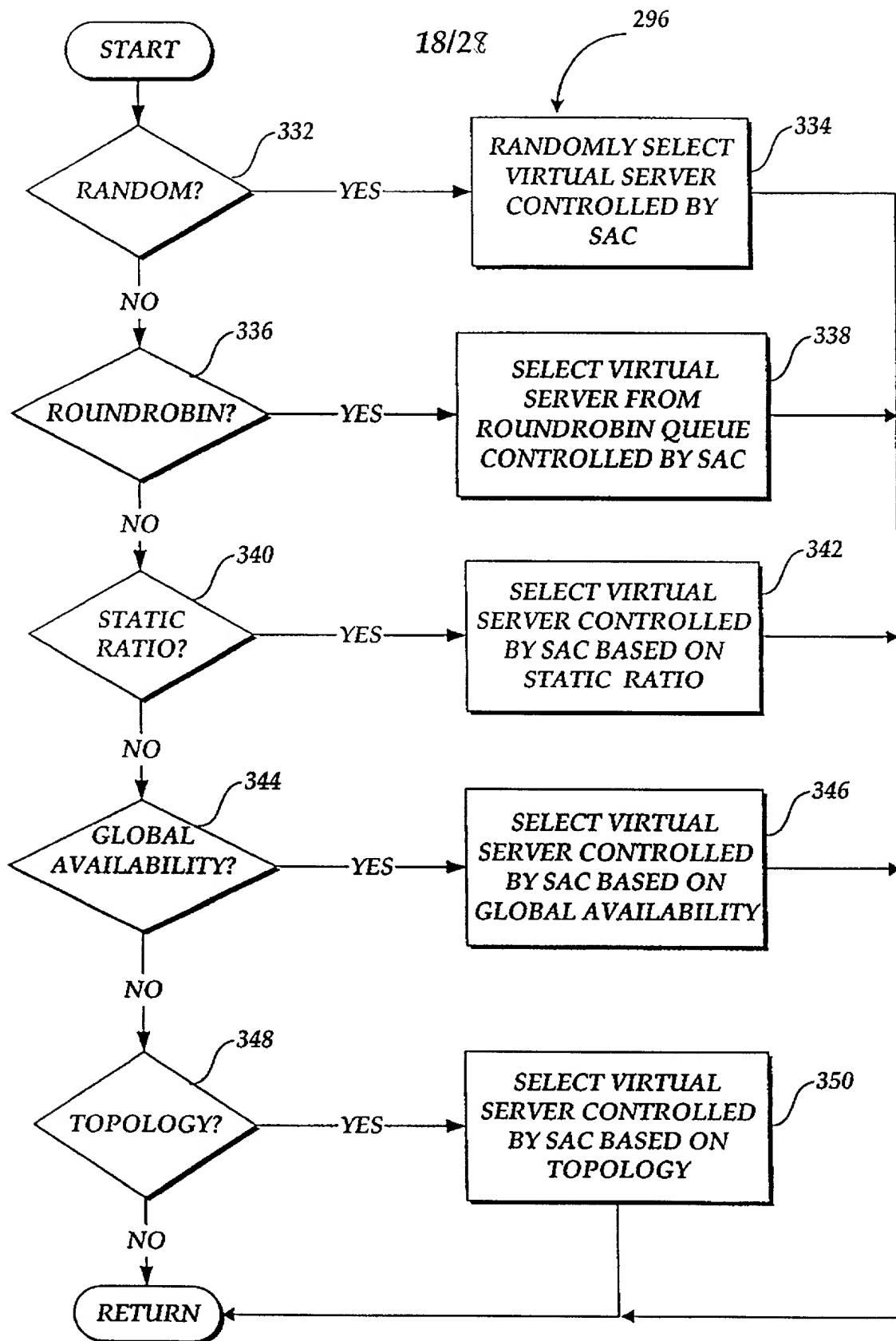


Fig. 11

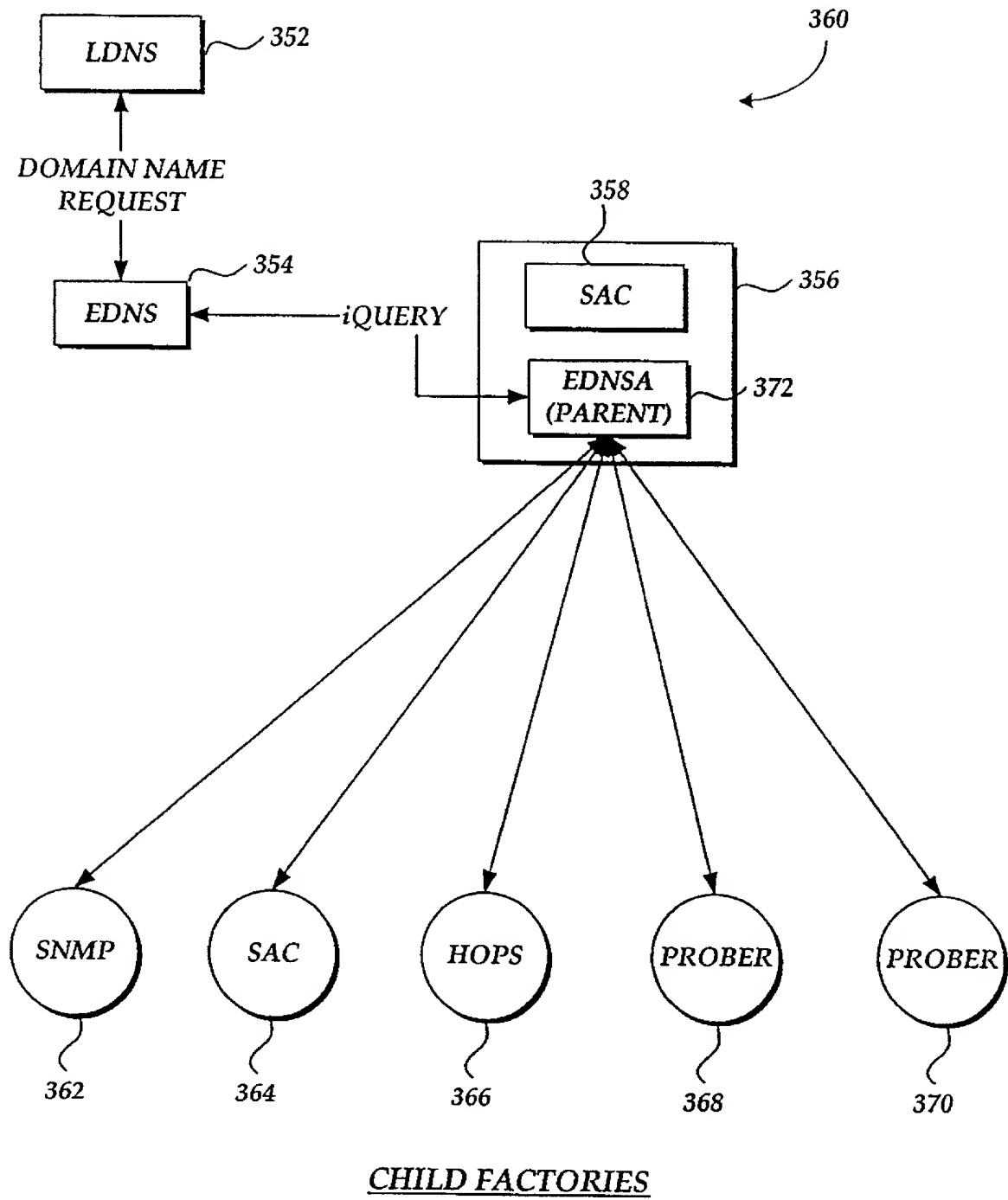


Fig.12

20/28 374

```

TOPOLOGY {
  ACL_THRESHOLD 1
  LIMIT_PROBES YES
  LONGEST_MATCH YES
  // SERVER/MASK (BIG/IP) LDNS/MASK SOURCE
  // NORTH AMERICA DOESN'T GO TO THE SOUTH AMERICA DATA CENTER
    200.107.34.0/24 198.0.0.0/8 0
    200.107.34.0/24 199.0.0.0/8 0
  // SOUTH AMERICA DOESN'T GO TO THE NORTH AMERICA DATA CENTER
    199.5.23.0/24 200.0.0.0/8 0
    199.5.23.0/24 201.0.0.0/8 0
}
  
```

Fig.13

```

TOPOLOGY SCORE {
  // SERVER/MASK (BIG/IP) LDNS/MASK SCORE
  /** NY Office */
    /* NY Office --> NJ (high score) */
    209.67.0.0/16 207.25.53.0/24 100
  /** Brazil */
    /* Brazil --> Brazil (high score) */
    200.211.0.0/16 200.255.0.0/16 100
    /* Brazil --> Argentina (low score) */
    63.65.0.0/16 200.255.0.0/16 5
    /* Brazil --> New Jersey (low score) */
    209.67.0.0/16 200.255.0.0/16 5
    /* Brazil --> New York (low score) */
    167.216.0.0/16 200.255.0.0/16 5
}
  
```

Fig.14

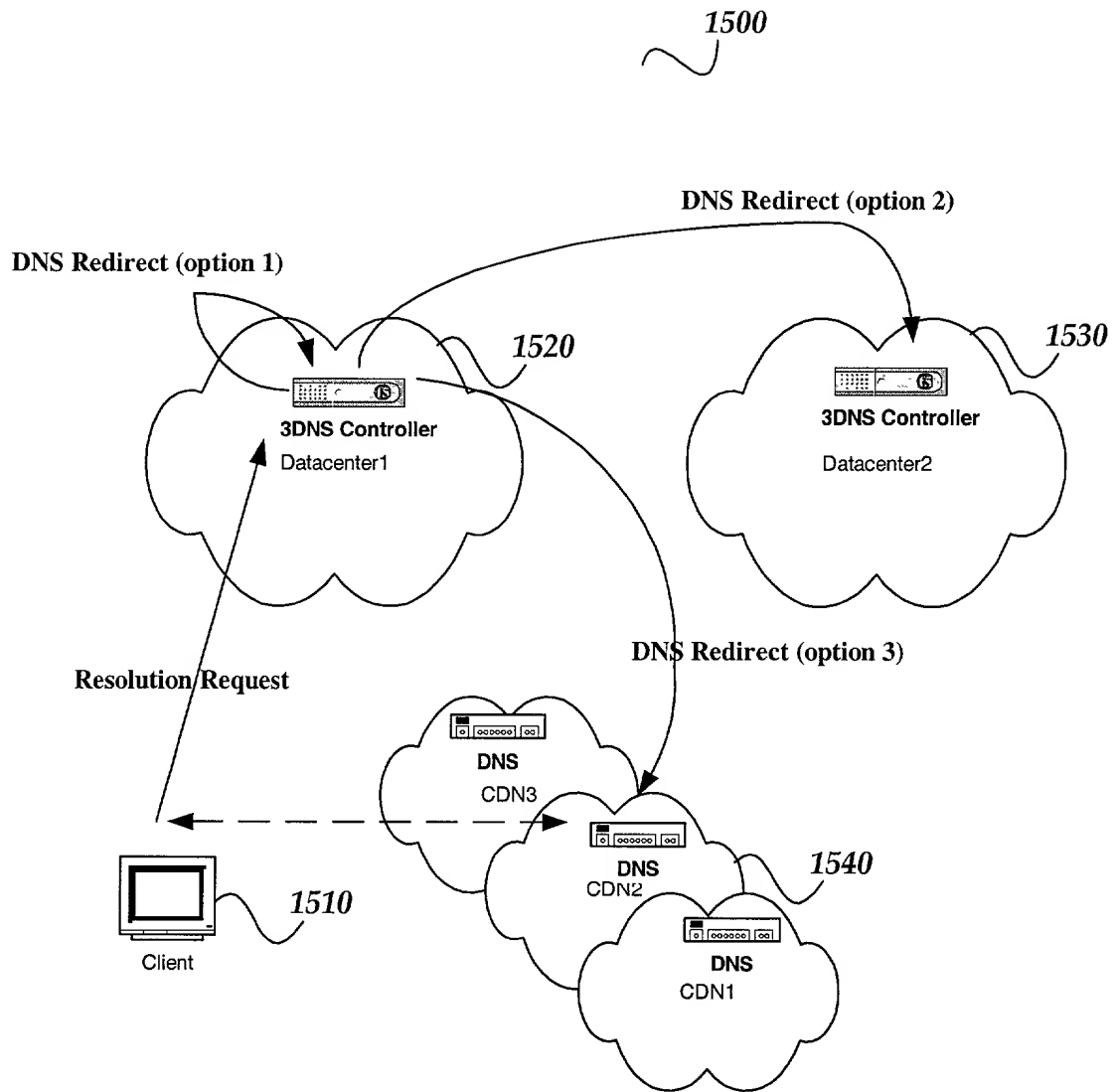
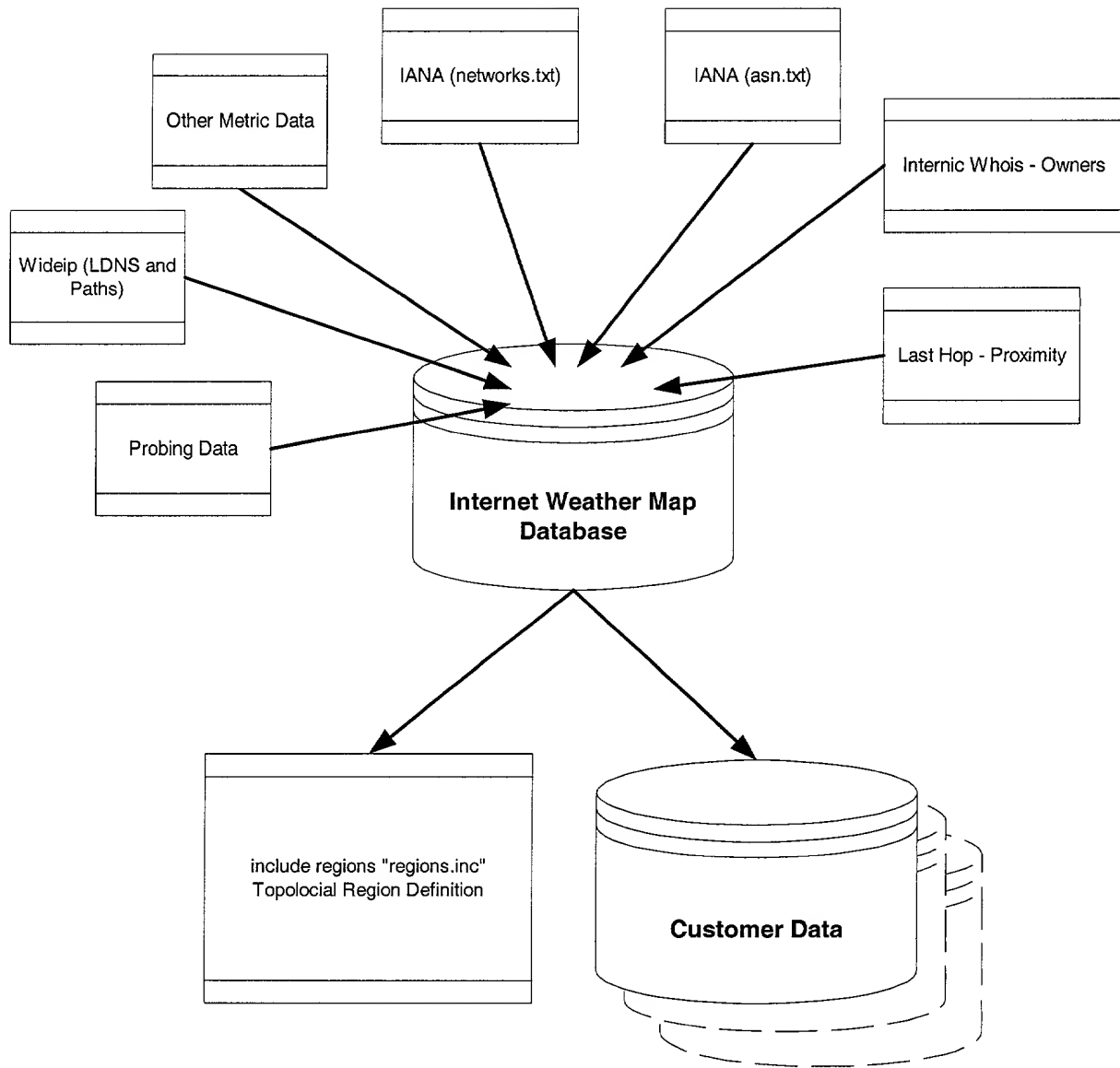


Fig.15

*Fig.16*

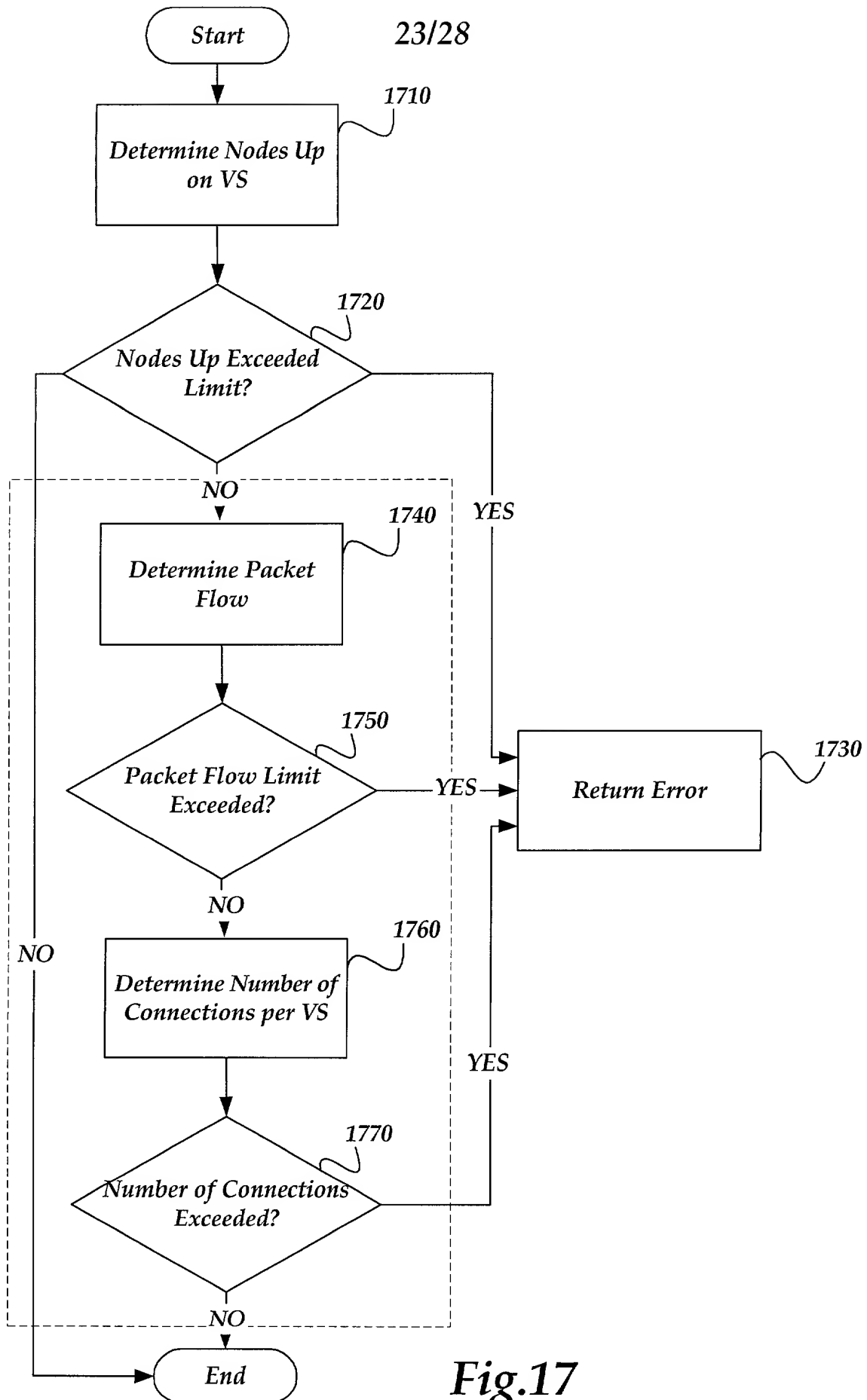
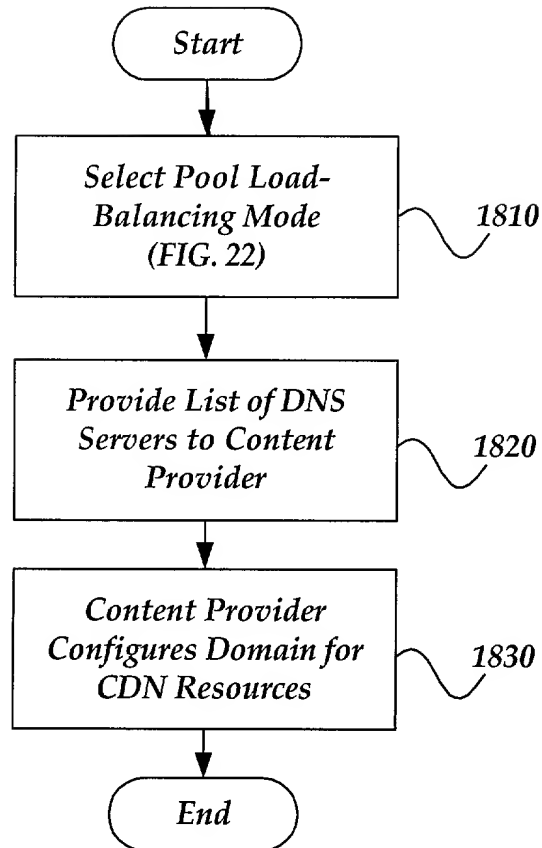


Fig.17

*Fig.18*

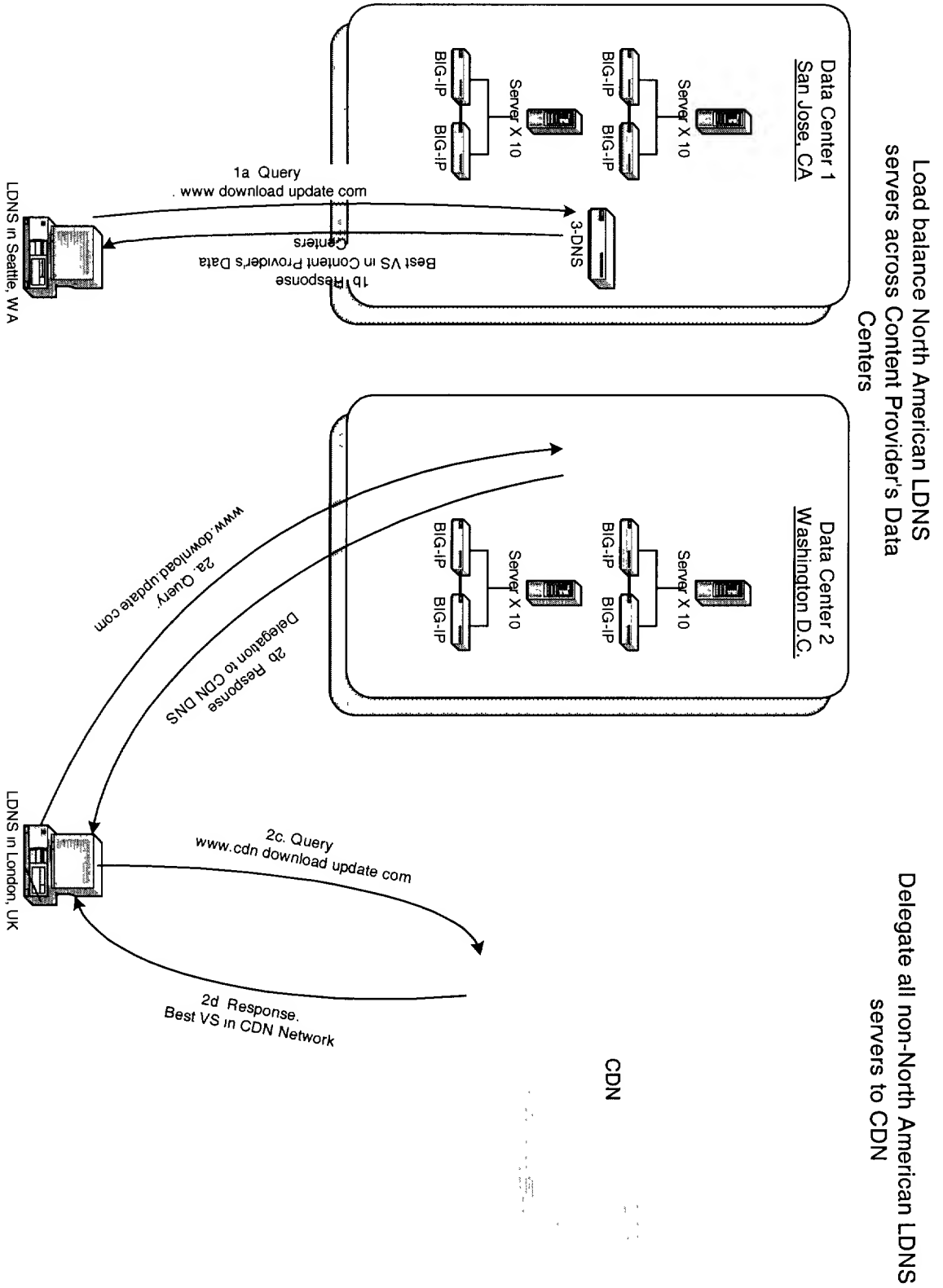
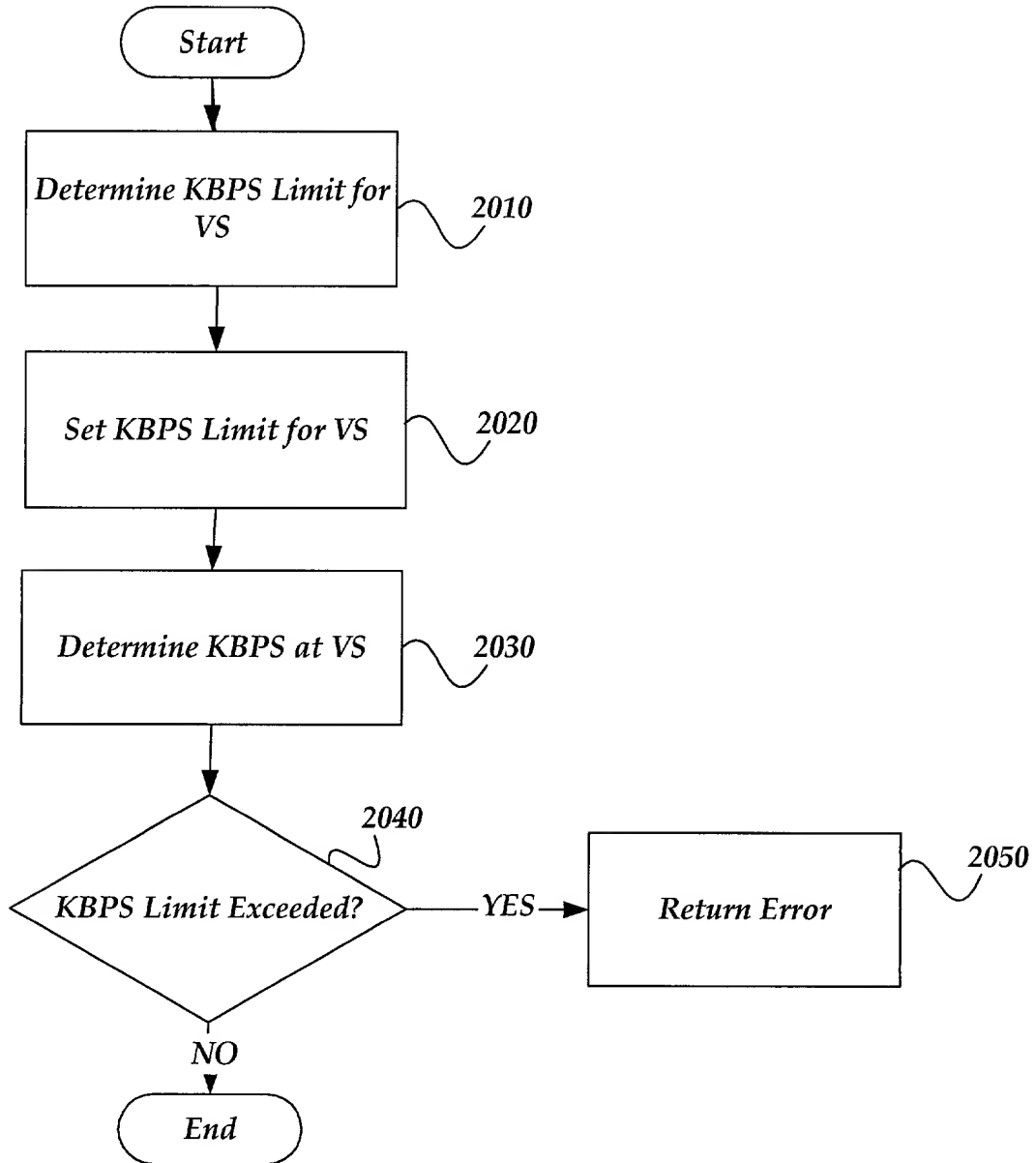
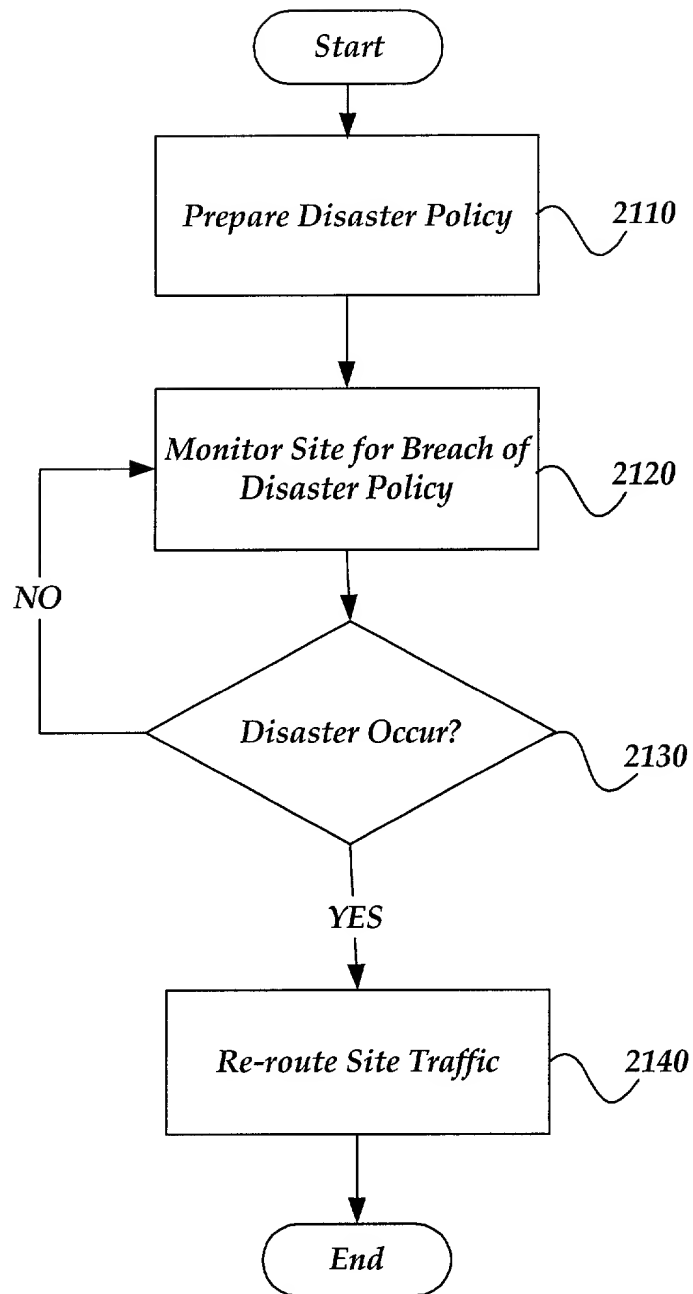


Fig.19

**Fig.20**

*Fig.21*

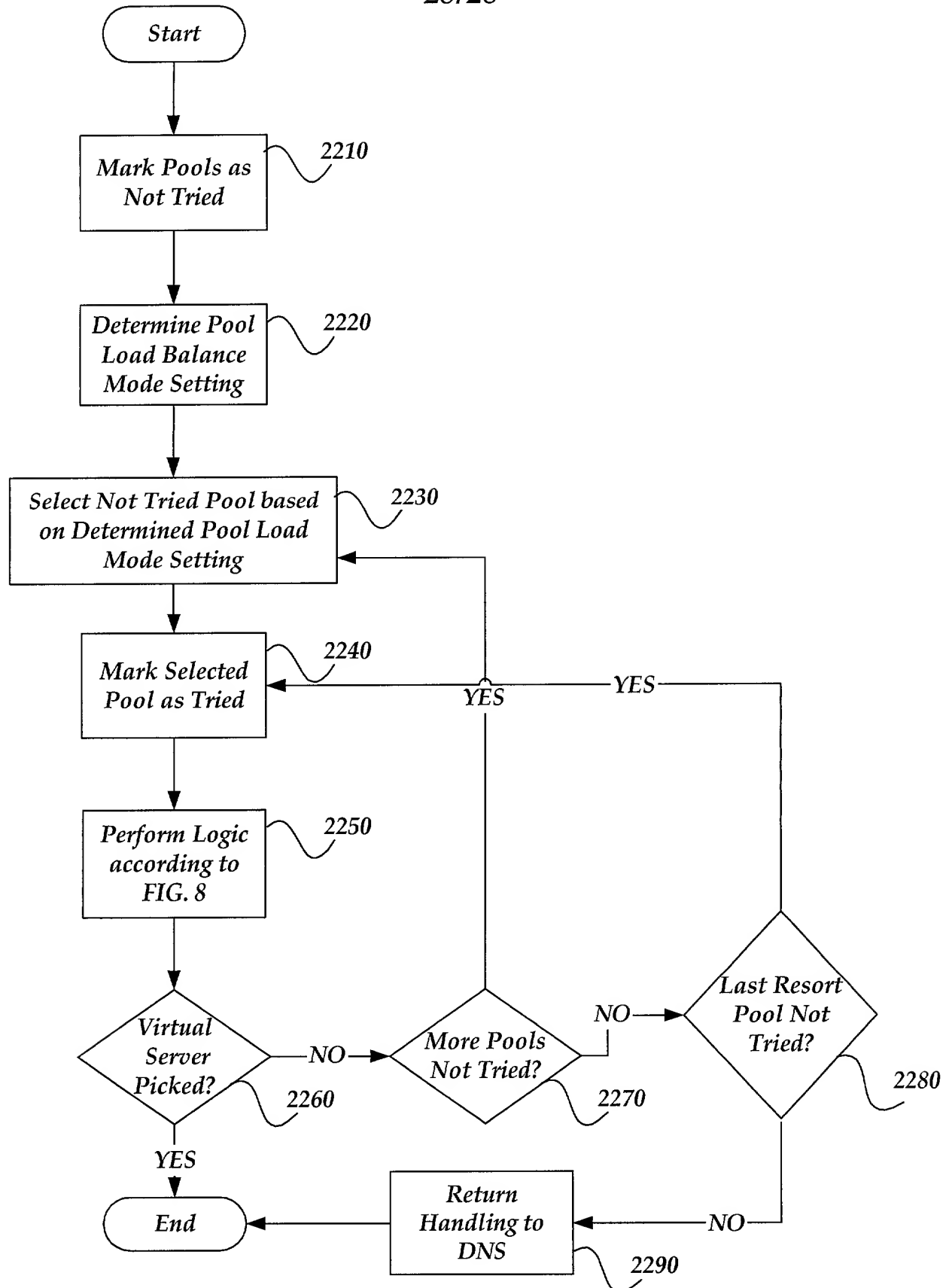


Fig.22